



WORKPLACE HEALTH & SAFETY

GENERAL ISOLATION PROCEDURES

June 2011



Bundaberg Sugar Ltd
ABN 24 077 102 526

Procedure: General Isolation Procedures

Page 1 of 22

BUNDABERG SUGAR LTD

EMPLOYEE:

I, _____
PRINT NAME

employed at _____

acknowledge that I have received, read and understood this document "General Isolation Procedures".

CONDITION OF EMPLOYMENT:

I understand that it is a condition of employment that I abide by the Health and Safety Policy, Procedures, and Safety Rules of Bundaberg Sugar Ltd.

SIGNED

Date ____/____/____

PERSON OTHER THAN AN EMPLOYEE:

I, _____

employed by _____

at _____

acknowledge that I have received, read and understood this document "General Isolation Procedures".

CONDITION OF ACCESS:

I understand that it is a condition of access to Bundaberg Sugar sites that I abide by the Health and Safety Policy, Procedures, and Safety Rules of Bundaberg Sugar Ltd including the General Isolation Procedures.

SIGNED

Date ____/____/____

(Return this receipt to your Workplace Health & Safety Officer on site)

D B Pickering
Preparer

G Basile
Approver

R Hatt
Authoriser

Reminder – Documents should be updated at least every three to five years.



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Procedure: General Isolation Procedures

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*All forms and booklets referred to in this Document are available
from your Workplace Health & Safety Officer*

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PREFACE

BUNDABERG SUGAR LTD HAS NO HIGHER PRIORITY THAN SAFETY.

Safety will not be violated.

The Company believes that Safety considerations are inseparable from all other aspects of our business.

All work-related injuries and illnesses can be prevented.

*The Company's goal in safety is to have **no injuries**.*

ABOUT THIS DOCUMENT

This document is not intended to take precedence over any existing Legislation but to complement it and reinforce the need for effective accident prevention. The document will be reviewed and amended as required to maintain compliance with changes within our organisation, the Sugar Industry and Health and Safety Legislation.

DOCUMENT DISTRIBUTION

All employees of Bundaberg Sugar Ltd and others nominated herein.

INTRODUCTION

This document confirms Bundaberg Sugar Ltd's commitment to the workplace health and safety of its employees now and into the future. The Health and Safety Policy and General Procedures and advice contained herein will form the basis of all programs and site activities, and defines the level of personal contribution and participation required of all Company personnel.

As no document can possibly provide all necessary information to meet all safety criteria, Managers and Supervisors, in seeking to meet the health and safety commitment of this Company should also initiate additional safety practices to reduce the exposure of personnel to risk.

CONDITION OF EMPLOYMENT

It is a condition of employment that all employees abide by the Health and Safety Policy and General Procedures and Safety Rules of Bundaberg Sugar Ltd. All personnel are required to demonstrate behaviour which is consistent with these health and safety standards. Breaches of health and safety will be addressed in accordance with the Company Disciplinary Procedure. Certain breaches can result in dismissal.

SAFETY LEGISLATION

In matters of health and safety, this Company and all its employees must comply with their obligations as defined in the current Workplace Health & Safety Act, Regulations and Advisory Standards.

D B Pickering

Preparer

G Basile

Approver

R Hatt

Authoriser

Reminder – Documents should be updated at least every three to five years.

TITLE: GENERAL ISOLATION PROCEDURES**1. Scope:**

Bundaberg Sugar Ltd **HAS NO HIGHER PRIORITY THAN SAFETY**. This document outlines the Company's General Isolation Procedures, which must be complied with at all times. The correct Isolation of plant and equipment is essential in ensuring the health and safety of all Workplace Participants. It is a condition of employment and access to site that all Workplace Participants abide by the Company's General Isolation Procedures and failure to do so will result in sanctions an outcome of which is exclusion from site and for an employee, disciplinary action an outcome of which is Summary Dismissal.

2. Procedure:**2.1 General**

- 2.1.1** Whenever you are required to work on equipment in any department, other than your own, you **MUST NOTIFY** the Workplace Participant in charge of that department of your intentions and task.
- 2.1.2** Before maintenance is commenced on any machine or equipment, all Workplace Participants are to ensure that all hazards are correctly controlled and isolated eg. electrical/mechanical energy. Workplace Participants must establish that the start up of in-line or adjacent machinery will not activate the equipment they are working on e.g. interlocking conveyors.
- 2.1.3** When it is established that the equipment about to be worked on is rendered inactive, by turning off all controls or by having circuit breakers isolated and/or fuses removed, each Workplace Participant is to place a "Danger" Tag **and** Lock on the Isolation Point. (Figure 8) Locks and/or chains are to be used at all times where practicable. For example, a padlock would not be required to isolate a 3-pin plug and lead which is disconnected. A padlock would be required on a 3-phase isolator. A Lock and chain, or other type of positive Locking device is required to isolate a manual steam valve. (See Figures 9, 10 for examples of safe Isolation.)
- 2.1.4** The Isolation must be tested prior to commencing work. The Workplace Participant testing the Isolation must have sufficient knowledge of the equipment to ensure the test is correctly performed. If in doubt ask your Supervisor or get assistance from an operator or competent person. **DO NOT TAKE ANY RISKS WHEN ISOLATING AND TESTING EQUIPMENT.**
- 2.1.5** When maintenance/repairs on equipment has been completed, Tags and Locks must be removed and the Supervisor or the Workplace Participant responsible for the equipment (eg. Shift Supervisor/Maintenance Engineer) advised that the job is completed. All Isolation Points must be returned to their original state prior to Isolation if this does not create additional hazards (De-isolate).
- 2.1.6** Locks and Lockout Callipers must be used with Tags. All Locks and Isolation equipment must be returned to the Lock and key shadow board or cupboard. Personal Locks will only be issued at the discretion of the Site Superintendent / Manager.

D B Pickering

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R Hatt

Authoriser

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2.2 Group Isolation:

- 2.2.1** Under normal conditions, each Workplace Participant working on shutdown equipment will place their own Tag and Lock on each Isolation Point prior to commencing work. However, at the Supervisors discretion, the following may apply:-
- 2.2.2** Where a number of Workplace Participants are working on one piece of equipment, an Isolation Controller, **UPON AGREEMENT BY THE GROUP**, may perform an Isolation for the group and be responsible for its effectiveness. The Isolation must be checked by another person as well as the Isolation Controller and be tested prior to work commencing as per normal procedures.
- 2.2.3** The Isolation Controller will place and sign a completed “Isolated” Tag and Lock at each Isolation Point in his/her name on behalf of the group. The keys for all Locks must be placed in a Lock Box at the Main Control Point. The Isolation Controller will place a completed “Isolated” Tag and Isolation Controller Lock on the Lock Box at the Main Control Point.
- 2.2.4** A **SAFE WORK PERMIT** must be used for all group Isolations. It is the responsibility of the Supervisor to complete the Safe Work Permit. If an Isolation Procedure does not exist for the Isolation the Isolation Controller must place a list of all the Isolations Points that have been Isolated at the Main Control Point.
- 2.2.5** Each Workplace Participant must place a Lock and personal “Danger” Tag at the Main Control Point and sign on to the permit prior to commencing work. When the task is completed each Workplace Participant must sign off on the Safe Work Permit and remove their Lock and “Danger” Tag. Then an Isolation Controller can remove the “Isolated” Tag and Isolation Controller Lock from the Lock Box at the Main Control Point using an Isolation Controller master key.
- 2.2.6** Prior to removal of the “Isolated” Tag and Isolation Controller Lock from the Lock Box at the Main Control Point the Isolation Controller must ensure that no persons are placed at risk. It is the responsibility of the Isolation Controller who is De-isolating to complete these checks prior to removing any “Isolated” Tags and Locks. Only Isolation Controllers may use the Isolation Controller Lock master keys.

2.3 Safe Work Permits:

- 8.2.1** Safe Work Permits are intended to provide a system of identification and control of hazards and ensure that all Workplace Participants are aware of these hazards. The Safe Work Permit system is outlined in BSL Document No. BSL\HS\F00006.
- 8.2.2** Safe Work Permits are to be used for all group Isolations. They may also be used for Complex Isolations or hazardous tasks. Examples are provided in this document.
- 8.2.3** Safe Work Permits **must** be used when required by legislation. For example, for confined space work and any excavation. (See BSL Document No. BSL\HS\P00005 for further information on confined space procedures)

2.4 Locks, Lockout Callipers and Control Keys:

- 2.4.1** To ensure positive Isolation, Locks and Lockout Callipers are available to all employees (and all Workplace Participants upon authorisation by a Supervisor). These devices must be attached to Isolation Points, along with a signed Tag to indicate the

Workplace Participant performing the Isolation. They are available from the Lock board, cupboard, Site Engineer or his/her nominee.

2.4.2 Locks and Callipers are to be returned after use. Personal Locks may be issued at the discretion of the Site Superintendent/Manager. This type of equipment is issued for personal safety and any vandalism, theft or inappropriate use of this equipment is a serious breach of the Company's procedures and will result in sanctions.

2.4.3 Placement and removal of Locking devices will be in accord with procedures nominated for "Danger", "Isolated" or "Out of Service" Tags.

2.5 Control Keys:

Some control panels have provision for a key control. These controls are **not** an acceptable form of Isolation of plant. Isolation of electrical equipment must utilise whole current Isolation e.g. line fuses or line circuit breaker.

2.6 Isolation Check List:

The following procedure is for a simple Isolation (eg 1 - 3 Isolation Points):

W WAIT

Don't Jump In

No job is so urgent that it is worth risking your life for.

2.6.1 Advise your Supervisor and Workplace Participant responsible for the equipment of task commencement.

2.6.2 If necessary enlist the assistance of an Isolation Controller.

2.6.3 Obtain the required Tags/Locks/Locking device.

A ASSESS THE RISK

Visually inspect the task you are about to commence. Are there any other safety requirements? If necessary, perform a written risk assessment and evaluate the hazards. Implement controls measures and reassess the risk.

I ISOLATE

2.6.4 Switch off all machine controls (e.g. isolating switches, valves, main controls, immediate machine controls, in line controls, etc). Isolating the control circuit is not an acceptable or safe Isolation method for working on plant. All electrical Isolations must be whole current (i.e. main circuit). If the equipment has a written Isolation Procedure it must be followed.

2.6.5 Tag/Lock out all forms of energy in the Safe Position ("off" position).

T

TEST

- 2.6.6** Return to the machine controls and attempt to start the equipment after ensuring all persons are clear. If unsure how to test your Isolation, ask a Supervisor.
- 2.6.7** (i) If the machinery is **ACTIVATED – RECHECK YOUR METHOD OF ISOLATION AND GET ASSISTANCE**. Do not commence work on this equipment until your Isolation method has been checked.
- 2.6.8** (ii) If machinery is inactive – Tag out machine controls and Lock in “off” or Safe Position.
- 2.6.9** On completion of work:-
- 2.6.10** Advise Supervisor of work completed.
- (i) Check area around shutdown equipment for personnel.
 - (ii) Remove your own Tags/Locks from the **MAIN CONTROLS ONLY**.
 - (iii) Remove your own Tags and Locks from any other controls (e.g. test)
 - (iv) Activate main controls only after checking all Tags and Locks have been removed.
 - (v) Restart equipment if authorised, after ensuring all personnel are clear. Alternatively leave all Isolation Points in their original position if this does not create a Hazard.
 - (vi) Destroy paper Tags relating to the job and dispose to waste bin.

N.B. Each Workplace Participant on the job will personally place and remove their own Tag (except as specified in section 7.9).

2.7 Case Examples:

2.7.1 Personal Isolation using a “Danger” Tag and Lock. Simple Isolation.

EXAMPLE: “You have been requested to change drive belts on an ash pump driven by an electric motor during the maintenance season”.

W

WAIT

Don't jump in.

Check if there is a written procedure for isolating this equipment or performing this task.

A

ASSESS THE RISK

The only form of energy driving the belt and pulley is the electric motor. It is located in a safe area and there is no mobile plant access. There are no hazards above or below the job. The job is during the maintenance season and all operating equipment is closed down. The pump will not be required until next crushing season.

I

ISOLATE

- Switch off the main isolator, which should be located in the vicinity of the motor and marked accordingly.

- Place a “Danger” Tag and Lock on the isolator **IN YOUR NAME**.
- You must complete all appropriate sections of the “Danger” Tag.

T

TEST

- Return to the control and try to start the pump, keeping other persons clear.
- If you are not certain, have an Isolation Controller assist you.
- If the motor starts – **GET AN ISOLATION CONTROLLER TO ASSIST IMMEDIATELY.**
- If the motor does not start commence work.
- On completion of the job clean up the area.
- Remove the “Danger” Tag and Lock.
- Check the area is clear and before testing the system ensure it does not create a hazard or damage equipment.
- Tell your Supervisor the job is complete and destroy the Tag. Return the Lock and Callipers to the Lock board or cupboard.

The reason you use a “Danger” Tag and Lock is because you are **PERSONALLY** at risk if the equipment is activated.

2.7.2 Personal Isolation using a “Danger” Tag and Lock. Complex Isolation

EXAMPLE: - “You have been requested to repair a mixed juice pump driven by an electric motor during the crushing season. The pump is one of two located side by side at ground level. The pump is belt driven with incoming and outgoing mixed juice lines and has sealing water permanently connected. You are not an authorised Isolation Controller”.

W

WAIT

Don't jump in.

You check and there is no Isolation Procedure available therefore you must use an Isolation Controller. This system may be interlocked and represents a significant risk of injury if not correctly isolated.

A

ASSESS THE RISK

The forms of energy associated with the system are the electric motor, the hot juice and the maceration water priming line. There are no hazards above the job.

I

ISOLATE

This equipment has no documented Isolation Procedure:

- Switch off the main isolator, which should be located in the vicinity of the motor and marked accordingly.
- Place a “Danger” Tag and Lock on the isolator **IN YOUR NAME** and the initials of the Isolation Controller on the reverse side of the Tag.
- Isolate the incoming and outgoing valves on the pump and chain and Lock them in the closed position.

- Isolate the sealing water priming line and Tag and Lock it.

T

TEST

- Return to the control and try to start the pump, keeping other persons clear.
- If the motor does not start, commence work.
- If the motor starts, **Do Not Proceed**, obtain further assistance from your Supervisor.
- Loosen the connections on the piping to allow any built up liquids to drain. Take Care. The juice and/or maceration water may be hot and can burn. Providing the valves are not leaking, complete repair of this equipment.
- On completion of the job clean up the area.
- Remove the Tags and Locks.
- Check the area is clear, and before testing the system, ensure it does not create a hazard or damage equipment.
- Tell your Supervisor the job is complete and destroy the Tags. Return the Locks and Callipers to the Lock board or cupboard.

The reason you use a “Danger” Tag and Lock is because you are PERSONALLY at risk if the equipment activated.

2.7.3 Group Isolation using a “Safe Work Permit”, Isolated and “Danger” Tags and Locks. Complex Isolation.

EXAMPLE: - “You are a Supervisor in charge of repairing an intercarrier headstock during the crushing season. The mill stop is intended to be short and the boiler remains operational. The repairs require the mill chute to be cleared and welding work to take place inside the top of the intercarrier. You are an authorised Isolation Controller”

W

WAIT

Don't jump in.

This is a Complex Isolation and involves a number of employees working on the system. Ensure all are in agreement to Isolate the system as a group.

A

ASSESS THE RISK

The forms of energy associated with the system are the electric motor driving the intercarrier, the mill turbine and barring motor. There are no hazards above the job. There is no fixed access and you will require a ladder. There is no work to be completed in the vicinity of the mill boots and it is not necessary to Isolate the maceration water. The ladder needs to be tied off. The access to the intercarrier is surrounded by walkways and there is no requirement for falls from heights control measures.

I

ISOLATE

This equipment has a documented Isolation Procedure which must be followed.

- Switch off the main isolator for the intercarrier motor, which should be located in the vicinity of the motor and be marked accordingly.
- Isolate the mill following the written Isolation Procedure (this is an example only; follow your local procedures for correct Isolation).

- Disengage the barring motor, Isolate, and place a Lock and completed “Isolated” Tag.
- Hand trip the emergency overspeed on the mill turbine governor. (ensure the emergency stop valve has closed)
- Close the main steam inlet valve, Lock and place a completed “Isolated” Tag.
- Lock and chain all Isolation (bLock) valves in the closed position and drain (bleed) valves in the open position. Attach “Isolated” Tags to each Lock.
- As the Isolation Controller you place an “Isolated” Tag and Lock on the isolator **IN YOUR NAME**. In this case the Lock Box (which is the designated Main Control Point) is placed beside the main isolator and all keys to the Locks are placed in the box. You then place an Isolation Controller's Lock and an “Isolated” Tag on the Lock Box to prevent access to the keys.

T TEST

- Have one of the group or another Supervisor check the Isolation prior to work commencing.
- Notify the shift Supervisor and have the mill operator try to start the intercarrier and mill, keeping other persons clear.
- If the equipment does not start then the group can commence sign in.
- It is the responsibility of the Supervisor to fill out a Safe Work Permit and provide instructions to the team working on the job. Ensure they understand all requirements.
- **Each person in the group** then places their own “Danger” Tag and Lock on the Lock Box (Main Control Point) and signs onto the Safe Work Permit before commencing work. Note that as you are going to work on the equipment you must place your own personal “Danger” Tag and Lock at the Main Control Point and sign on to the Safe Work Permit.
- On completion of the job clean up the area.
- Have each Workplace Participant remove his or her Tags and Locks and sign off on the Safe Work Permit. Once you as the Isolation Controller are satisfied that no hazard will be created then remove your “Isolated” Tags and use the master Isolation Controller key to remove the Isolation Controller Lock. Now you are able to access the keys in the Lock Box and complete De-Isolation.
- Check the area is clear and before testing the system ensure it does not create a hazard or damage equipment.
- Tell the shift Supervisor the job is complete and destroy all paper Tags.
- Return the Locks and Callipers to the Lock board or cupboard.

The reason you used a “Danger” Tag and Lock at the Main Control Point was because you were **PERSONALLY** at risk if the equipment activated. You used the “Isolated” Tags and Locks as you were the Isolation Controller for the job on behalf of the group.

2.7.4 Using an “Out of Service” Tag

EXAMPLE: - “You have found an electric drill that you are about to use with its cord half severed and bare wires exposed”.

- Switch off the power and disconnect the drill and attach an “Out of Service” Tag to it. Write on the Tag the condition observed and complete all sections of the Tag. "Broken" or "Not Working" is **not** an adequate description.
- Take the drill, with the Tag attached, to your Supervisor for repairs.

- After the drill has been repaired and checked, the Supervisor will authorise you or some other Workplace Participant (in this case, the repairer), to remove the Tag and place the drill back into service.

The main reason for using an “Out of Service” Tag is that you have identified a hazard in equipment and you believe that its operation could cause injury to a person or damage to equipment if it was used.

2.7.5 Workplace Participant requiring a competent person to Isolate circuit breakers or pull fuses:

If a Workplace Participant requires this kind of electrical Isolation, he/she must contact a competent person or an electrical Supervisor. When the competent person performs the Isolation, both will place a Tag on the Isolation Point. The Workplace Participant working on the equipment will fill out a “Danger” Tag and the competent person completes an “Out of Service” Tag. When the Workplace Participant completes his/her work and requires electrical power activated, he/she will advise the competent person to assist them to remove the Tags and Locks and re-activate the circuit if it does not create a hazard.

2.7.6 ESSENTIALS

ALWAYS

- ALWAYS** TAG AND LOCKOUT EQUIPMENT PRIOR TO WORK BEING PERFORMED.
- ALWAYS** ADVISE THE SUPERVISOR OF YOUR INTENTION TO TAG AND LOCKOUT EQUIPMENT IN THEIR AREA.
- ALWAYS** REMEMBER WHERE TO OBTAIN TAGS AND LOCKOUT DEVICES.
- ALWAYS** SECURELY ATTACH YOUR “DANGER” TAG AND LOCK EVERY TIME ON MAIN CONTROL POINTS.
- ALWAYS** CHECK FOR INTERCONNECTED START CONTROLS.
- ALWAYS** FILL OUT ALL SECTIONS OF THE TAG.
- ALWAYS** TEST THE ISOLATION BEFORE COMMENCING THE JOB.

NEVER

- NEVER** REMOVE ANOTHER PERSON’S “DANGER” TAG OR LOCKOUT DEVICE.
- NEVER** USE THE WRONG TAG;
 - “DANGER” TAG – FOR PERSONAL USE**
 - “ISOLATED” TAG – ONLY FOR USE BY ISOLATION CONTROLLERS**
 - “OUT OF SERVICE” TAG – FOR EQUIPMENT ONLY**
- NEVER** FORGET TO REMOVE YOUR TAG WHEN YOU HAVE COMPLETED THE JOB.
- NEVER** ATTEMPT TO START EQUIPMENT UNTIL ALL PERSONS ARE CLEAR.
- NEVER** REUSE TAGS.
- NEVER** USE SOMEONE ELSE’S TAG.
- NEVER** RELY ON SOMEONE ELSE TO TAG OR LOCKOUT FOR YOU.

You must personally Lock and Tag the Main Control Point even in group Isolations.

MOST IMPORTANTLY USE THE WAIT SYSTEM

Wait
Assess the risk
Isolate
Test

3. Records:

The records of those Workplace Participants issued with this document are to be filed in personnel records.

4. Responsibilities:

- 4.1** It is a condition of employment that all employees observe the rules contained herein. Failure to do so will result in disciplinary action which may include Summary Dismissal.
- 4.2** It is a condition of access to site that all Workplace Participants (other than employees) observe the rules contained herein. Failure to do so will result in sanctions which may include exclusion from site.
- 4.3** An Isolation Controller is responsible to ensure that they only perform Isolations where they have adequate knowledge and experience to complete correct and safe Complex Isolation procedures for themselves and others. An Isolation Controller must ensure that no persons are placed at risk prior to De-Isolation of complex or group Isolations.
- 4.4** A Supervisor must ensure that all Workplace Participants under his/her control are instructed in, know and understand procedures to isolate equipment.
- 4.5** If a Workplace Participant is not an Isolation Controller, then that Workplace Participant will arrange for an Isolation Controller to assist in all Complex Isolations where no written specific Isolation Procedure exists. In this case, the Workplace Participant undertaking the Isolation signs the "Danger" Tag and the Isolation Controller initials the reverse side of the "Danger" Tag. Refer to Fig.1 Danger Do Not Operate Tag.
- 4.6** Whenever you can foresee that the operation of any switch, control or valve or the use of any defective equipment could cause personal injury to another person, it is then your responsibility to place an "Out of Service" Tag on the control or equipment. You must then advise an appropriate Supervisor.

5. Definitions:

5.1 Case Examples

Working examples depicting application of the Company's Isolation Procedures.

5.2 Company

Bundaberg Sugar Ltd ABN 24 077 102 526

D B Pickering

Preparer

G Basile

Approver

R Hatt

Authoriser

Reminder – Documents should be updated at least every three to five years.

5.3 Complex Isolation

Any equipment or task which has greater than three Isolation Points or is designated as requiring a Safe Work Permit. Items of plant, which have a specific Isolation Procedure, do not require the use of an Isolation Controller unless a group Isolation is being utilised.

5.4 “Danger” Tag

A Tag used by a Workplace Participant when they are **PERSONALLY WORKING** on equipment, which has been isolated. It is only to be **REMOVED** by that Workplace Participant.

5.5 De-Isolation

The process of returning previously isolated equipment to its normal state on the completion of work. e.g. on/off, running/stopped, auto/manual. Particular sites may have specific requirements or procedures for the De-Isolation of equipment.

5.6 Employee

For the purpose of this procedure an employee is any person employed directly by Bundaberg Sugar Ltd including those under a contract of service.

5.7 Isolation

For this document, Isolation is the temporary removal of an energy source or other source of risk to health or safety; (eg. electrical, mechanical, fluid etc) combined with the use of such tools as Tags, Locks and permits to prevent the activation the source for the purpose of conducting work safely on or around plant.

5.8 Isolation Controller

A Workplace Participant designated as such for a specific area, site, or system. For example, pan stage, refinery or computer control system. An Isolation Controller is a Workplace Participant who is competent to perform correct and safe Complex Isolation procedures for themselves and others, and is designated as an Isolation Controller by the Company. Any additional training that may be required to satisfy this task will be conducted using in house Company training.

5.9 Isolation Controller Locks and Master Keys

Isolation Controller Locks are special Locks (some sites ORANGE) that may only be used by Isolation Controllers to prevent access to Lock Boxes containing keys used for Isolation Points in group Isolations. Only Isolation Controllers may use Isolation Controller master keys to access Lock Boxes to de-isolate after work is completed. This may only occur after every person in the group has signed off the Safe Work Permit and removed their personal Lock and Tag from the Main Control Point.

5.10 “Isolated” Tag

A Tag that is attached by an Isolation Controller to an Isolation Point that has been isolated and Locked to prevent operation by any person. An “Isolated” Tag may only be removed by an Isolation Controller.

5.11 Isolation Point

Is the defined Isolation Point for equipment? For example a 3 phase isolator, a main line valve etc. Isolation Points are not to be assessed "in Isolation" of the system. For example, the Isolation of a motor via the main fuses is one Isolation Point. Any subsequent Isolation Point after that point which is made safe by the removal of the fuses is not considered a separate Isolation Point.

5.12 Locks and Lockout Callipers

Isolation devices shall be operated with a key system and shall be used for all personal Isolation where practicable. All Locks used for personal Isolation will be on a numbered key system. If a site elects to use a master key system no one other than the Senior Engineer and Mill Superintendent / Manager shall hold master keys.

5.13 Lock Box

A Lock Box is a Lockable box able to contain a group of Isolation Locks (keyed alike) with one key for the group of Locks within the box.

5.14 Main Control Point

The Main Control Point is either the main isolator or Lock Box depending on the method used for a complex or group Isolation.

5.15 "Out of Service" Tag

A Tag used by a Workplace Participant to **INDICATE A PIECE OF EQUIPMENT IS FAULTY OR OUT OF SERVICE**. The specified equipment must be isolated.

5.16 Restricted Electrical Equipment

Switchboards, sub-boards, circuit breakers, or transformer equipment specified by the Senior Electrical person on site as subject to restricted access.

5.17 Safe Position

Is a position which controls the potential hazard, ie "electrical isolator: off" or "hopper door: closed", etc.

5.18 Safe Work Permit

Is a permit to work document which must be used for certain tasks where legislated e.g. confined space. Permits may also be issued for other tasks as described in this document, as appropriate or where required by the Company.

5.19 Senior Supervisor

Shift Supervisors, Department Heads and Managers, ie employees with a high level of responsibility.

5.20 " Special Instruction" Tag

A Tag used for equipment, which must be left in a certain state (on/off). This Tag can only be used if the equipment is not faulty, not out of service, and is not a danger to any person/s. This Tag may also be used to pass on instructions in regard to that equipment i.e. valve to be left 1/3 open.

5.21 Supervisor

Means any Workplace Participant who is directly responsible for the work allocation and performance of another Workplace Participant on the work site.

5.22 Summary Dismissal

Immediate dismissal of an employee whose actions are in gross disregard of the Company's General Isolation Procedures.

5.23 Workplace Participant

Workplace Participants are defined as people within the Company workplace and include: All employees, contractors, trainees, apprentices, and visitors whilst on site and employees/ staff whilst undertaking authorised Company business and attending authorised Company functions.

6. References:

- Workplace Health and Safety Act and Regulations, Qld,
- Electrical Safety Act and Regulations, Qld,
- Industry Code of Practice - Sugar Milling,
- BSL Workplace Health and Safety Policy and Procedures,
- BSL Workplace Health and Safety General Safety Rules,
- BSL Electrical Safety Policy and Procedures,
- AS 4024.1 Safeguarding of Machinery General Principles

7. Job / Product Safety Requirements:

"DANGER" Tags

- 7.1 Equipment isolated and marked with "**DANGER DO NOT OPERATE**" Tags (see Fig. 1.) must not be operated **UNDER ANY CIRCUMSTANCES**.
- 7.2 Paper Tags are to be destroyed after one use. Supplies are readily available from your Supervisor and at locations on site.
- 7.3 Reusable "Danger" Tags must be marked with a waterproof pen and are only for use by Workplace Participants designated by site management. Up to date information must be included on these Tags prior to reuse. Unused Tags must be held in a cleaned state.
- 7.4 All Tags must be securely fastened with non-conductive ties and the spaces on the Tag completed with the information specified.
- 7.5 **DO NOT USE SOMEONE ELSE'S TAG** under any circumstances. Each Workplace Participant must take responsibility for their own safety.
- 7.6 Only the Workplace Participant who placed a "Danger" Tag and Lock (an Isolation) on an item of equipment may remove it. Any Workplace Participant who removes another person's "Danger" Tag and Lock except as allowed under Section 7.9 will be subject to sanctions if an offence under this policy is confirmed by an investigation. Sanctions include exclusion

from site of a Workplace Participant. The disciplinary process shall apply to an employee, an outcome of which is dismissal from employment.

7.7 Before a Workplace Participant removes their Lockout or “Danger” Tag, they must ensure that equipment activation will not create a hazard.

7.8 After removal, the Workplace Participant who removed their Tag must notify a Workplace Participant in authority that he/she has done so.

7.9 PROCESS IF A PERSON LEAVES SITE WITH A “DANGER” TAG/LOCK ATTACHED

If a person has left the site with a Tag and/or Lock attached, the following process must be followed:

7.9.1 The Senior Supervisor must make every effort to contact the Workplace Participant.

7.9.2 When contacted, the Workplace Participant must return to the site to de-isolate the equipment.

7.9.3 Disciplinary action or sanctions, as appropriate, will be initiated by the Company against the workplace participant who failed to follow Isolation Procedures. The minimum level of disciplinary action for this offence will be a written warning.

The only circumstance in which any Tag and Lockout may be removed, other than by the Workplace Participant who originally signed and placed it, is when the original Workplace Participant is **DEFINITELY UNAVAILABLE**. The absent Workplace Participant’s Tag may then be removed by a **Senior Supervisor** if the following conditions have been met.

7.9.4 The situation is fully **INVESTIGATED PERSONALLY** by the Senior Supervisor.

7.9.5 The Senior Supervisor removing the Tag / Lockout is **FULLY CONVINCED** that no hazard is created. The removal of another person’s Tag is a serious event.

7.9.6 The Senior Supervisor has contacted the Site Superintendent / Manager for approval to remove the Tag and/or Lock.

7.9.7 If the Site Superintendent/Manager is not available, the Senior Supervisor is to contact the next person in the management chain (i.e. Regional/ General Manager) until successful. If the Site Superintendent and subsequent manager are unavailable the Senior Engineer or Senior Chemist may provide authority to remove a Tag. The Senior Engineer or Chemist is then responsible for making contact with the site superintendent and/or Manager to advise of the breakdown in the Isolation Procedure.

7.9.8 The original Workplace Participant is to be notified of the action taken concerning his/her Tag/Lockout as soon as possible.

7.10 Normally Lockout/Tag systems remain in force for the duration of a shutdown. If, however, the work is incomplete (e.g. end of shift) “Danger” Tags are to be removed and replaced with “Out of Service” Tags before leaving the job and a Supervisor advised. Incoming Workplace Participants commencing work on the job **SHALL CARRY OUT** an Isolation check and place their own “Danger” Tag and Lock on the Isolation Points. The “Out of Service” Tag is to remain on the Isolation Points until the work is completed.

If the job is completed during subsequent shifts, the Workplace Participant who attached the "Danger" Tag, **PROVIDED** prior authorisation is received from the Supervisor, shall remove both Tags (Out of Service and Danger) and the Lock. If the job is still incomplete, the outgoing Workplace Participant will remove their "Danger" Tag, leave the original "Out of Service" Tag on the controls and advise their Supervisor. This procedure will be repeated until the work is complete.

During the non-crush non-shift operations it may be acceptable to leave equipment fully isolated at the discretion of the site superintendent / Manager.

"ISOLATED" Tags

- 7.11** Only an Isolation Controller may attach "Isolated" Tags. They are attached to Isolation Points after they are isolated and Locked off as part of a Group Isolation.
- 7.12** No one is to operate equipment when an "ISOLATED" (see Figure 3.) Tag or Lock is attached to it or its controls.
- 7.13** After the Isolation is completed the Isolation Controller places all Isolation Point keys in a Lock Box at the Main Control Point and places an Isolation Controller Lock and "Isolated" Tag on the Lock Box.
- 7.14** Only an Isolation Controller may remove an Isolation Controller Lock and "Isolated" Tag and de-isolate after all "Danger" Tags have been removed from the Main Control Point and checks have been completed to ensure that no person is at a risk from activation of the equipment.

"OUT OF SERVICE" Tags

- 7.15** No one is to operate equipment when an "Out of Service" (see Figure 2.) Tag is attached to it or its controls.
- 7.16** If operation of equipment can create a hazard to a person or further damage equipment, an "Out of Service" Tag must be attached to the equipment, and/or controls. This is the responsibility of all Workplace Participants to maintain a safe workplace.
- 7.17** Workplace Participants must notify their Supervisor as soon as possible that an "Out of Service" Tag has been placed on any equipment so that corrective action can be taken.
- 7.18** "Out of Service" Tags are to be used on new or relocated equipment prior to commissioning. A Workplace Participant undertaking commissioning of equipment is to first check out the area around the equipment to ensure that no one is at risk and then advise their Supervisor or the Workplace Participant responsible for the area or equipment that the equipment is ready for commissioning. **BOTH** parties will then ensure that no personal injury or damage will occur prior to starting equipment.
- 7.19** Tags will be fastened with non-conductive ties, completed with the information specified in legible printing. They must be used only once and then disposed of appropriately (re-usable Tags must be cleaned to remove prior information).
- 7.20** Only the Workplace Participant who placed an "Out of Service" Tag may remove it; or a Workplace Participant authorised to do so after the equipment has been repaired or tested. The only exception is as specified in Section 5.10.



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7.21 Paper and cardboard Tags are to be destroyed after one use. Supplies are readily available from your Supervisor and at locations on site.

7.22 Other Workplace Participants' "Out of Service" Tags must not be used.

"SPECIAL INSTRUCTION" (Information) Tags

7.23 Workplace Participants must follow the written instructions supplied on a "Special Instruction" Tag (see Figure 4.) which is attached to any equipment or its controls. Only the Workplace Participant who placed the Tag or a Senior Supervisor may remove the Tag or authorise other instructions relevant to the equipment on which the Tag is placed.

7.24 "Special Instruction" Tags are used for tasks that require equipment to be left in a certain state, and will not create a hazard to personnel or equipment. For example the installation of a temporary heater on a motor which needs to be left on for a period of time, or a valve which is to remain in a certain position.

7.25 Tags will be fastened with non-conductive ties. All instructions stated must be in clear, concise and easy to read printing.

7.26 Paper (or thin card) Tags are to be destroyed after one use. Supplies are readily available from your Supervisor and at locations on site.

8. Environmental Requirements:

8.1 Dispose of used paper / thin card Tags to waste bins after tearing / cutting up.

9. Quality Requirements:

9.1 Print legibly on all Tags. Ensure all appropriate sections on a Tag are completed.

D B Pickering

Preparer

G Basile

Approver

R Hatt

Authoriser

Reminder – Documents should be updated at least every three to five years.

10. **Example Tags and Locking Devices:**



Figure 1. Danger Do Not Operate Tag



Figure 2. Caution “Out of Service” Tag

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Reminder – Documents should be updated at least every three to five years.



Figure 3. Isolated Do Not Operate Tag



Figure 4: "Special Instruction" Tag

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Figure 5. Lock Boxes and Locks

Some sites utilise colour coded Locks:

Red – personal Locks – full time employee

Orange – Isolation Controller Lock – only for use by Isolation Controllers

Green – group Isolation Locks - keyed alike for Lock Boxes

Yellow – personal Lock – contractors and other employees



Figure 6. Danger Do Not Operate Tag and Lock



Figure 7. Danger Do Not Operate Tag and Lock

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Authoriser

Reminder – Documents should be updated at least every three to five years.



Figure 8. Danger Do Not Operate Tag and Lock



Figure 9. Safe Isolation for Steam Valve Using Callipers



Figure 10. Safe Isolation for Steam Valve

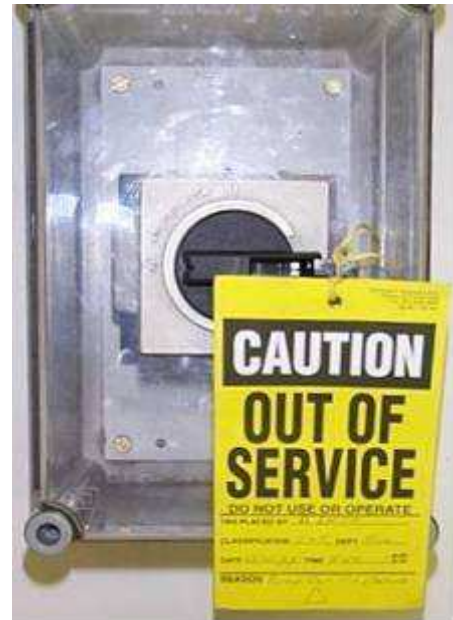


Figure 11. Caution "Out of Service" Tag